Meeting Summary:

Technology-Based Numerical Nutrient Limits in Discharge Permits:
Technical Advisory Committee

July 6, 2004, 10 AM - 3 PM, DEQ Piedmont Regional Office

1. Members present:

Name	Representing
1. Alan Pollock	DEQ-OWQP, TAC Chairman
2. Bob Steidel	VA Municipal League
3. John B. Reeves, Sr.	Citizen
4. Mark Haley, Hopewell RWTF)	VAMWA
5. Jeff Corbin	Chesapeake Bay Foundation
6. Tim Slaydon, Spotsylvania Co. Utils.	VA Association of Counties
7. Tom Botkins, MeadWestvaco	VA Manufacturers Assoc.
8. Dr. Clifford Randall	VA Tech Engineering
9. Robert Koroncai (via conf. phone)	EPA-Region 3
10. Katherine Slaughter	So. Environmental Law Center
State Resource Staff	
11. John Kennedy	DEQ-CBP, Staff Lead
12. Russ Baxter	Sect. of Natural Resources
13. Rick Hill	Dept. of Cons. & Rec.
14. Bill Shobe	Dept. of Planning & Budget
15. Allan Brockenbrough (alt. for Jon Van Soestbergen)	DEQ-CO Water Permits
16. Tom Faha	DEQ-NRO Water Permits

Others attending:
Tom Roberts - Smurfit-Stone / VMA alternate
Bob Robinson - Omega Protein
Chris Pomeroy - Aqualaw / VAMWA alternate
Walter Gills - DEQ / Construction Assistance Program

2. TAC members were provided with copies of the 6/15/04 Options Papers, with the meeting summary integrated into the "pros", "cons" and "notes" columns. There was a short discussion about one item that came up in the 6/15 meeting -- the question of whether or not to include refractory nitrogen in the total-N discharge, because it may not be "bioavailable". It was concluded that this issue needs further study (and is a research topic of the Water Environment Federation). Although not broken down in the wastewater treatment process (where detention time may only be on the order of 24 hours), it might become bioavailable over a longer time frame once it's discharged into the Bay ecosystem.

3. **Issue #8**: Implementation Contingent on Available Funding? Materials were distributed about the State Revolving Loan Fund (contents of *Program Design Manual* and *Procedural Guidelines*). Background was given on the SRF and statistics about funding available, projects supported, and eligibility criteria. Annually, the SRF usually has about $80 million in the form of loans available for wastewater infrastructure projects. This amount can be used to leverage up to $180-200 million through bonds, if needed. Loans are offered at very favorable,

competitive rates (may even be zero-interest, in cases of fiscal hardship), with fixed rates and lower closing costs than other financing sources. The SRF is only available to publicly owned facilities (i.e., industrial plants and private service authorities are ineligible). It was explained that the Virginia Resources Authority jointly administers the SRF, and the VRA also has a pooled bond fund (although rates aren't as attractive as the SRF's).

Materials were also provided about the Water Quality Improvement Fund - Point Source Program (VA Code excerpt: *Water Quality Improvement Act*; *WQIF Annual Report*, and *WQIF Grant Guidelines*). Details were given about WQIF appropriations to-date, projects supported, with examples of nutrient reduction plant retrofits jointly funded by the SRF and WQIF.

The TAC then discussed the issue of whether or not meeting technology based limits or load requirements should/can be contingent on availability of funding. EPA noted that the Clean Water Act doesn't allow any "off ramp" from requirements to meet Water Quality Management Plan load allocations due to the unavailability of funding. However, funding should be offered if available. It was noted that the discussion about funding contingency might be broken down into two categories -- new and existing plants. Existing plants are usually publicly owned, and have access to government grants and loans, but new plants tend to be privately developed with eventual transfer to a public entity. One TAC member stated that it would be inconsistent with past and current policy to not provide funding because nutrient reduction is a shared responsibility between the State and plant operators/localities.

A question was raised about how Maryland put together their Enhanced Nutrient Reduction initiative, with the answer being that achieving "best available treatment" levels was made contingent on receipt of grant funding. The State legislature then provided the funding mechanism by creating MD's Chesapeake Bay Watershed Restoration Fund, capitalized through surcharges on sewer and septic systems.

Another TAC member supported the idea that the WQIF should receive funds every year for water quality initiatives, but saw the requirement to achieve nutrient reduction as a separate issue, and didn't support making compliance with effluent limits contingent on funding. It was noted that many of the plants currently have excess capacity (being "over-built"), with the question raised about how to utilize this capacity now for nutrient removal, with the promise from the State that future funding needs to replace lost capacity would be met. It was explained that State agencies couldn't obligate future General Assemblies to any funding commitments. However, when considering grant-funding priorities some additional consideration might be given to plants willing to utilize this excess capacity now.

A question was raised about what incentives local governments would have, if grants aren’t made available, to go forward with the nutrient reduction initiative. The TAC was asked to consider whether or not the WQIF should continue as currently administered -- as a special purpose grant fund, to go beyond permit requirements or relieve fiscal stress on localities.

4. **Issue #9**: Implementation Schedules. It was explained that under current regulations, the permit program allows for an implementation schedule before compliance is required, but the schedule can't exceed the life of the permit (usually issued for 5 years). It was asked if the State intended to re-open all the affected permits immediately after the revised Bay water quality standards become effective. Preliminary plans are to have the permits revised as they come up, according to their regular reissuance schedule. A suggestion was made to have the regulation be "self-implementing" -- that is, have an effective date within the regulation with a deadline for plant retrofits and compliance with performance requirements, regardless of the timing of permit reissuance or reopening.

   It was requested that however the State intends to implement the technology-based requirements, an allowance be made for a reasonable compliance time frame. This would avoid any unintended consequences such as higher bid prices, or shortages of skilled labor due to the number of simultaneous plant retrofits, and scheduling conflicts with numerous other public works projects. EPA stated that since this is a State-originated, technology-based regulation that goes beyond minimum federal requirements, any dates deemed appropriate and reasonable could be placed in the regulation. It was noted by another TAC member that the best approach would be to achieve the greatest amount of nutrient reduction in the shortest possible time, and the worst decision that could be made is to spend insufficient funds to correct the problem.

5. **Issue #10**: Watershed Permitting / Trading / Future Service for Growth. A watershed permit could cover several facilities in the same Bay tributary basin. (Examples are the Tar-Pamlico in North Carolina, the Connecticut/Long Island Sound TMDL with the general permit for TN reduction). Each plant would still have an individual VPDES permit, but would operate under the umbrella of a total load allocation to the grouping of plants included under the watershed permit. Possible advantages of the watershed permitting approach are
   - Account for the grouped plants under the load allocation at the same time.
   - More cost-effective and get reductions in a shorter timeframe.

   VAMWA believes that watershed permitting is one of the best potential components of this program. It would facilitate the most cost-effective and coordinated trading program, rather than relying on plant owners to "pair-up". Scheduling problems may be alleviated somewhat, and water quality goals could be reached at a reasonable pace, with progress on controlling point source loads likely to occur sooner than nonpoint source reductions. However, an important assumption that leads to these conclusions is that the compliance schedule would be longer than five years.

   Discussion shifted to the possibility of forming a credit-trading program, with examples given about how this has worked for air emission controls. It was acknowledged that there are complexities unique to the water environment that make direct use of air emission trading concepts somewhat difficult, but the goals are similar -- reduce pollutant inputs to the level (or below) protective of environmental quality. Under this approach, there is less focus on individual load allocations and more attention to achieving the total allocation at lowest cost. Each plant would have an allowance given by the State, with a permit requirement to limit discharge to that allowance using whatever technology is available. This has been

enormously effective in the air quality control program, with loads reduced significantly at a much lower cost than originally predicted. This approach allows "demand-side" reductions to occur.

A non-permit based trading program is more cost-effective than a constrained permit-based program. It became apparent that many of the same program components exist for both the air and water credit-trading concepts, but the terminology is slightly different (e.g., allowances = load allocations). VAMWA envisions a credit-trading program that incorporates:

- Basin allocations, disaggregated among the existing facilities, proportional to their past performance and inputs.
- A schedule for reductions that takes a phased approach.

It was noted that the nitrogen-oxide air credit-trading program has a 5% set-aside, while the current tributary strategies for Bay nutrient reduction have no allocation reserve. It was also explained that the total air emission allowance was contained in federal legislation (Clean Air Act), with formulas used to calculate the individual source category load limitations.

In closing, it was suggested that the State must develop a policy governing the operation and administration of a water discharge credit-trading program. VAMWA requested that, if possible, state staff analyze the unintended consequences of a short-term compliance schedule, and what flexibility may exist under current regulations/laws in the scheduling and sequencing of construction. It was explained that in citing the problems that could arise if simultaneous retrofits were required at numerous plants, state staff were only repeating the concerns and experiences that were voiced by plant owners involved in the WQIF program to-date. It was noted that current regulations don't allow a compliance schedule to run beyond the term of a discharge permit (5 years), but in the case of the Connecticut TMDL implementation Region II EPA had approved a schedule that extended 15 years.

6. **Public Comments**:
   - When the nitrogen oxide State Implementation Plan (the "NOx SIP Call") was instituted, our facility received an emission allocation as well as a State permit. The requirement was to declare, in advance, what the facility expected to do over the next year so that EPA and DEQ has an assurance that the emissions limit would be met. To utilize the credit-trading option, the trading partners had to be identified and an accounting method defined.

The next meeting of the Technical Advisory Committee will be August 3, 2004, at the DEQ-Piedmont Regional Office, starting at 10 AM.